

Industry Panel

Note to Panel Participants:

This is a list of questions/issues we plan on discussing during the Wednesday panel. Our expectation is that we will “work through” these during our discussion. We are not looking for your company’s official corporate position on these but instead would like your impression and best personal sense of the situation and facts surrounding these issues. Our objective is to have some reasoned dialog with some experienced industry representatives.

We probably won’t get through all of these questions in the allotted time, so they’re presented below in rough order of how we expect to discuss them.

Questions/Topics:

1. **Integration Issues:** What integration issues have you experienced or are you aware of with the integration of LNS building controls into your UMCS?
2. **System Integrator:** Tomorrow we’re going to be spending some time on how to implement the specs, and one of the things we’re going to talk about is system integration and getting a system integrator. One of the things we talk about is that since the spec for the UMCS is Open and we require licensing/ownership of the system to be with the Government, we can in theory have a “third party”(i.e. not the M&C server software vendor) do the integration. We prefer a consistent SI but this might not be feasible in all cases. Do you have any thoughts about having a 3rd party integrate DDC systems into a UMCS originally provided by your company? Do you think industry supports the idea of a 3rd party SI or will there be issues with this?
3. **Local Display Panel (LDP) Issues:** The specification assumes LDPs have SNVT inputs and outputs with configurable type, and the inputs and outputs of the LDP are bound to other devices. It seems that LDPs don’t use bindings and are instead configured to “poll” for the data. When the LNS database for a system containing an LDP is added to/merged with another database the devices are renumbered and the configured polling of the LDP needs to be “fixed”. What experiences have you had with this issue and do you have an approach to integrating building with LDPs?
4. **Overrides:** As far as we know, LON doesn’t have a good (standard) method for implementing overrides from the front end or a Local Display Panel (LDP), so we have specified a method. Does our method make sense to you and can you support it?
5. **Legacy System Integration:** Army installations usually have multiple legacy HVAC systems from multiple manufacturers.
 - Would you advise for or against the integration of legacy HVAC systems? Why? What are the challenges?
 - Can you integrate to legacy building-level controls? How?
 - Can you integrate to a legacy UMCS (front-end)? How?(If not already addressed by integration of legacy building DDC or UMCS... what software gateways does your front-end support (i.e. what legacy systems can you integrate to without a hardware gateway)?
6. **Binding to the UMCS:** For displaying graphics pages, we have the UMCS poll (request) the data from the controllers in the building. This is fine for graphical displays and trending, but for other data (alarms, for example), we’d like to have the data sent to the UMCS using “send on change”, which seems to require the ability to bind to the UMCS. Is this possible? Is it a reasonable/practical thing to do?

7. **Open BAS Challenges:** What do you see as the biggest challenge we face getting Open BAS systems:

- Using our specifications
- Using the MILCON Transformation Design-Build Model RFP
- In the Government procurement/operation environment

As we mentioned yesterday we're revising the specs right now. Based on your knowledge of the specs and these challenges do you have any suggestions for revisions we should consider making to the specs a) more Open, b) more implementable, c) more functional, in that priority.

8. **Functional Profiles:** (Although we primarily assembled this panel to discuss UMCS issues, there are a few topics that are more building controls related that are worth discussing - this is one of them) We're considering developing LonMark Functional Profiles (FPs) for our standard sequences, with the end goal of requiring that devices used under the spec be certified to such a profile. These profiles would be more stringent (more required SNVTs and SCPTs) than the current LonMark FPs:

- Do you see value in this?
- Do you think this would be industry supported (including your company and others)

9. **LonWorks for non-HVAC Controls:** The focus of the specs is on LonWorks based HVAC. What are the challenges/obstacles in extending this to other LonWorks based systems such as fire protection, lighting, security, etc.?

10. **Enterprise Systems:** As the Army builds enterprise-level systems, the ability to interface the BAS to other systems (often by exporting data from the BAS) becomes critical. How would you recommend accomplishing this? Specifically address interfacing to:

- A base wide computerized maintenance management system. Or, do you already have such a package integrated (as an option) to your front-end software? Which one? Are any Army installations using it?
- Army base-wide metering with reporting from each installation to a national data analysis center/repository.

11. **Application Generic Controllers (AGCs):** While the notion of an AGC has been around in LonWorks for some time, it's only recently that we've seen any/many implementations. Although we asked you here to focus on UMCS, do you have any thoughts to offer on GPPC vs. AGCs?

- Will AGCs replace GPPCs?
- Will AGCs evolve (or are they there already) to be as "beefy" as GPPCs (in terms of RAM, I/O, CPU, etc.)?
- Will GPPC programming evolve to look more like AGC configuration?
- Will GPPCs always be "better" for some tasks?
- Are some tasks better suited for AGCs than GPPCs?
- Will AGCs that include some sort of "line code" option end up preferentially using the line code rather than the other configuration methods? In other words, will AGC "configuration" end up looking a lot like GPPC "programming"?

12. **CorpsLON Support:** "We're always hearing from industry (vendors, 'experts', and customers) "so and so" is "moving away from LonWorks", or "is moving to BACnet" or "won't be supporting [CorpsLON] anymore". How do these statements apply to your company, as far as you know?